



Procedure: C-A-EMP-001-TDVG  
Revision: 03  
Revision Date: 1/15/03

## COLLIDER-ACCELERATOR DEPARTMENT

Title: Environmental Management Program For TDVG Operations

Prepared by: Ray Karol

Group: ESH&Q

### Approvals

Signature on File \_\_\_\_\_ Date: \_\_\_\_\_

ESH&Q Division Head

Signature on File \_\_\_\_\_ Date: \_\_\_\_\_

Collider-Accelerator Department Chairman

(Indicate additional signatures)

Y N

☐ x FS Representative: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Radiological Control Coordinator: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Chief ME: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Chief EE: \_\_\_\_\_ Date: \_\_\_\_\_

x ☐ Environmental/P2 Coordinator: Signature on File \_\_\_\_\_ Date: \_\_\_\_\_

☐ x QA Manager: \_\_\_\_\_ Date: \_\_\_\_\_

☐ x Other: \_\_\_\_\_ Date: \_\_\_\_\_

<b>ENVIRONMENTAL MANAGEMENT PROGRAM</b>  <u>Tandem Van de Graaff Facility</u>	<b>Completed by:</b> <u>Ray Karol</u>  <b>Date:</b> <u>January 15, 2003</u>
<b>1. Significant Aspects:</b> (see table of "Criteria for Significant Aspects" for description of letter designation) <ul style="list-style-type: none"> <li>• Regulated Industrial Waste (a)</li> <li>• Hazardous Waste (a)</li> <li>• Radioactive Waste (a)</li> <li>• Atmospheric Discharge (c)</li> <li>• Storage/Use of Chemicals (c)</li> <li>• PCBs (a)</li> </ul>	
<b>2. Department-wide Objective(s):</b> <ul style="list-style-type: none"> <li>A. COMPLIANCE – (b) Implement Corrective Actions to Achieve Article 12 Conformance (ESD Environmental Objectives &amp; Targets FY2003, Sect. 2[b])</li> <li>B. COMPLIANCE – (d) Meet Federal and State Air Program Requirements including reducing the use of (and eventual phase out of) Ozone Depleting Substances (ODS) (ESD Environmental Objectives &amp; Targets FY2003, Sect. 2[d])</li> <li>C. COMPLIANCE – (e) Schedule and conduct regulatory compliance assessments to evaluate compliance to applicable regulations on a three-year cycle (ESD Environmental Objectives &amp; Targets FY2003, Sect. 2[e])</li> <li>D. POLLUTION PREVENTION – (a) Integrate pollution prevention (P2) into the work planning processes to reduce generation of hazardous, mixed, and low-level radioactive routine waste streams (FY03 Critical Outcome, Appendix B, 3.3.2.1, Pollution Prevention; ESD Environmental Objectives &amp; Targets FY2003, Sect. 3[a])</li> <li>E. POLLUTION PREVENTION – (b) Integrate pollution prevention (P2) to evaluate and implement pollution prevention opportunities. Expand awareness and involvement in the BNL P2 Program (FY03 Critical Outcome, Appendix B, 3.3.2.1, Pollution Prevention; ESD Environmental Objectives &amp; Targets FY2003, Sect. 3[b])</li> <li>F. POLLUTION PREVENTION – (c) Integrate pollution prevention (P2) to reduce or prevent generation of non-routine waste, including spills (FY03 Critical Outcome, Appendix B, 3.3.2.1, Pollution Prevention; ESD Environmental Objectives &amp; Targets FY2003, Sect. 3[c])</li> <li>G. GROUNDWATER PROTECTION - Fully implement groundwater protection program. Protect groundwater quality from further chemical and radiological releases, and remediate existing contaminated groundwater in a cost-effective and practical manner (FY03 Critical Outcome, Appendix B, 3.3.2.1, Pollution Prevention; ESD Environmental Objectives &amp; Targets FY2003, Sect. 5)</li> </ul>	
<b>3. Department-wide Target(s):</b> <ul style="list-style-type: none"> <li>A. List and prioritize all SCDHS requested Article 12 corrective actions. Where funding is available actions will be implemented. Funding requests (ADS &amp; P2) will be made for all unfunded corrective actions</li> <li>A. Identify, label and inspect all SCDHS registered tanks and outdoor storage areas/work areas in</li> </ul>	

accordance with the Storage and Transfer of Hazardous and Nonhazardous Materials SA

- A. Participate in the Laboratory-wide compliance assessment of Storage and Transfer of Hazardous and Nonhazardous Materials, scheduled for the 3rd quarter of FY03
- B. Ensure compliance with the Clean Air Act regulatory requirements for emission units, processes, and emission sources covered by the BNL Title V permit that are located within the C-A Dept
- C. Participate in the planned assessment of the Spill Response subject area by March 30, 2003
- D. Monitor waste generation for these three waste streams and report to line management on a quarterly basis. Analyze for pollution prevention opportunities
- E. Submit a minimum of two pollution prevention project proposals by December 15, 2002, or two success stories, or two lessons learned to the P2 Program Manager by September 15, 2003
- F. Ensure preventive maintenance is adequate and performed on all systems determined as critical systems
- F. Develop an action plan to reduce spills by August 15, 2003
- F. Monitor waste generation rates for non-routine waste streams and report to line management on a quarterly basis
- G. Target zero impact on groundwater quality from current operations

#### **4. Department-wide Environmental Performance Indicator(s):**

- Tier I inspection results
- Number of SPDES Permit exceedences by C-A as reported by BNL ESD
- P2 projects, success stories and lessons learned that are submitted to BNL P2 Council
- Number of significant spills at C-A facilities
- Volume/weight of routine wastes sent to BNL Waste Management Division
- Completion of tasks listed in Section 10

#### **5. Department-wide Program Description:**

Departmental self-assessment program, Tier I inspections, and annual compliance reviews by the C-A ESHQ Division ECR are designed to meet FY03 ES&H Objectives and Targets. Submitting pollution prevention projects, success stories or lessons learned contribute towards achieving FY03 Critical Outcome in Appendix B, 3.3.2. Tracking and trending waste generation and waste recycling as well as on time regulatory reporting contribute towards achieving FY03 Critical Outcome Appendix B, 3.3.2.1. The minimization of wastes, prevention of spills and meeting SPDES permit limits also helps satisfy the BNL Environmental, Safety, and Health objectives.

#### **6. Potential Environmental Impact(s):**

- Hazardous, industrial or radioactive waste mismanagement could contaminate the environment and incur RCRA or local agency penalties
- Undocumented atmospheric discharges could violate NYSDEC or EPA air emission regulations
- PCB mismanagement could contaminate the environment and incur TSCA or local agency penalties
- Improper storage of oils could incur penalties under Suffolk County Article 12 or cause leaks, which could contaminate the environment

**7. Legal and Other Requirements:**

- Hazardous Waste Management
- Non-radioactive Airborne Emissions
- Radioactive Airborne Emissions
- Oil / PCB Management
- Pollution Prevention subject areas

**8. Operational Controls:** See [Operational Controls Form](#)**9. Budget:** Operating Budget**10. Structure, Authorities, Responsibilities**

Tasks	Person Responsible	Completion Dates
A. Complete actions to achieve Article 12 conformance	C-A ESHQ Division Head	06/03
Prepare a Water Systems Monitoring Plan for C-A Water Systems	C-A ECR	12/02
A. Develop procedures for compliance to the SA inspections and implement them with the appropriate line organization supervisors	C-A ECR/C-A Environmental Coordinator	10/02
Ensure that all identified tanks are registered and appropriately labeled and maintain an up to date listing of C-A registered tanks	C-A ECR	04/03
A. Facilitate and participate in applicable assessments and complete Compliance Assessment Cards in accordance with the Environmental Assessments SA	C-A QA Manager/C-A ECR	06/03
B. Review all emission points for compliance, documentation, and forward any updates to the ESD Subject Matter Expert	C-A ECR	03/03
C. Facilitate and participate in applicable assessments and complete Compliance Assessment Cards in accordance with the Environmental Assessments SA	C-A QA Manager/C-A ECR	06/03
D. Maintain records and report progress against waste goals and, where appropriate, suggest P2 opportunities	C-A Environmental Coordinator	Quarterly

E. Submit a P2 proposal, and a success story (for construction of the BAF in accordance with Article 12 requirements)	C-A ECR	12/02 & 8/03
F. Audit systems, whose failure could result in a significant environmental impact, to ensure that maintenance is adequate and performed to appropriate schedules. Audits shall include, but not be limited to fire protection system maintenance, and activated water system monitoring equipment/alarms	C-A QA group	04/03
F. Ensure that operational procedures are in place to respond to spill and that the procedures are in accordance to applicable subject areas	C-A ESHQ Division Head	Annually
Set a goal of zero spills and track performance	C-A ESHQ Division Head	Quarterly
F. Maintain records and report on non-routine waste generated and cost of disposal	C-A Environmental Coordinator	Quarterly
G. Track the number of unusual or off normal events associated with groundwater impacts in current operations	C-A ESHQ Division Head	Quarterly